

REMARKS

Applicant respectfully requests reconsideration of the present application in view of the foregoing amendments and in view of the reasons that follow.

Claims 2-3, 16, and 26-29 are requested to be cancelled without prejudice or disclaimer.

Claims 1, 4, 6, 8, 10, 11 and 15 are currently being amended.

This amendment changes and deletes claims in this application. A detailed listing of all claims that are, or were, in the application, irrespective of whether the claim(s) remain under examination in the application, is presented, with an appropriate defined status identifier.

After amending the claims as set forth above, claims 1, 4-15 and 17-25 are now pending in this application.

Drawings

The drawings were objected to. Applicant has amended Figures 1 and 3 to include the coordinate r , and accordingly, applicant submits that the objection to the drawings has been overcome.

Claim objections

Claim 27 was objected to for informalities. This rejection is moot in light of the cancellation of claim 27.

Rejections under 35 U.S.C. § 112, second paragraph

Claims 1-5, 10, 14 and 24-27 stand rejected under 35 U.S.C. § 112, second paragraph as being indefinite. Claims 1 and 10 have been amended to clarify that r is the distance along the straight line from the first reference point. Accordingly applicant submits that the rejection has been overcome.

Rejections under 35 U.S.C. §§ 102 and 103

Claims 1-3, 8-10, 13-14, 18, 20, 23 and 25-27 stand rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 6,130,730 to Jannson et al. ("Jannson"). Claims 15-17 and 28-29 stand rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent Application Publication US 2002/0097496 to Lu ("Lu"). Claims 4-7, 11-12, 19, 21-22 and 24 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Jannson in further view of Lu. Applicants respectfully traverse these rejections for at least the following reasons.

Claim 1

Independent claim 1 is patentable over Jannson. Independent claim 1 has been amended to include the limitations from dependent claims 2 and 3, which have been cancelled, and to clarify that the pseudorandom parameter of the prisms is in the alternative. Claim 1, as amended, recites "the plurality of prisms include at least a pseudorandom peak angle, α , height, h, length, l, or pitch, p." This feature is not suggested by Jannson. While Jannson discloses substrates with prism structures, Jannson does not disclose that these prism structures have any pseudorandom parameters. Thus, Jannson fails to disclose or suggest "the plurality of prisms include at least a pseudorandom peak angle, α , height, h, length, l, or pitch, p" as recited in claim 1, and claim 1 is patentable thereover.

Claims 6 and 15

Independent claim 6 recites "a surface comprising a prism structure characterized by a peak angle of greater than 90 degrees and less than 105 degrees and a refractive index of between approximately 1.65 and 1.8." Neither Jannson nor Lu suggest this feature of claim 6 or the advantages resulting therefrom. As shown in Figure 8 of the present specification, the central luminance has its highest values for the region where the peak angle is between 90 degrees and 105 degrees and the refractive index is between 1.65 and 1.8. Neither the recited angle and refractive index range, nor the unexpected results resulting therefrom, are suggested by Jannson or Lu.

While Jannson discloses a substrate with a refractive index between 1.5 and 1.7, nowhere does Jannson suggest that the combined peak angle and refractive index range as recited in claim 1 provide a greater luminance. Lu likewise fails to suggest the recited ranges

or its effect on luminance. In light of the failure of Jannson and Lu to disclose or suggest the recited ranges of claim 6, or its unexpected advantages in providing increased luminance, claim 6 is clearly patentable thereover.

Independent claim 15 recites “wherein a peak angle of the prism structure is greater than 90 degrees and less than 105 degrees, and the refractive index of the substrate is between approximately 1.65 and 1.8”, and is thus patentable over Jannson and Lu for reasons analogous to claim 6.

Claim 8

Independent claim 8 is directed to a backlight display which comprises a light guide and an optical substrate receptive of the light from a reflective device of the light guide, where the optical substrate comprises “a first surface and a second surface opposing the first surface, the first surface arranged closer to the light guide than the second surface, the second surface comprising a prism structure characterized by a cross section having a curved facet.” Claim 8 is rejected over Jannson. Jannson, however, fails to disclose a display with an optical substrate having a surface with curved facet prism structures, where the opposing surface is arranged towards the light guide.

Jannson discloses in Figures 11 and 12 an optical system with a first waveguide 150 that provides light to a second collimating waveguide 170 (Figs. 11 and 12, col. 22, lines 43-58). The second waveguide 170 includes a number of prism structures (see Figs. 11 and 12).

Jannson, however, does not disclose an optical system where an optical substrate is receptive of the light from a light guide, where the optical substrate comprises “a first surface and a second surface opposing the first surface, the first surface arranged closer to the light guide than the second surface, the second surface comprising a prism structure characterized by a cross section having a curved facet.” In the Jannson system the surface of the waveguide 170 that has the prism structures is arranged towards the waveguide 150 that provides the light to the waveguide 170. Presuming for the sake of argument that the first waveguide 150 of Jannson corresponds to the light guide as recited in claim 8, Jannson does not disclose that

the light guide 170 has “a first surface and a second surface opposing the first surface, the first surface arranged closer to the light guide than the second surface, the second surface comprising a prism structure characterized by a cross section having a curved facet.” Thus, Jannson fails to anticipate claim 8.

Moreover, it would not have been obvious to modify the optical system of Jannson to change the arrangement of the light guide 170 so that its prisms are on the side away from the light providing light guide 150. Such a modification would cause the optical system of Jannson to be unfit for its intended purpose.

Applicant believes that the present application is now in condition for allowance. Favorable reconsideration of the application as amended is respectfully requested.

The Examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present application.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 19-0741. Should no proper payment be enclosed herewith, as by a check being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 19-0741. If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicant hereby petitions for such extension under 37 C.F.R. §1.136 and authorizes payment of any such extensions fees to Deposit Account No. 19-0741.

Respectfully submitted,

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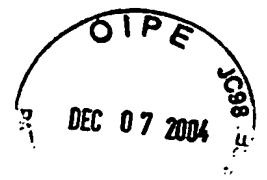
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Amendments to the Drawings:

The drawing sheets attached in connection with the above-identified application containing Figures 1-3 and 6 are being presented as sheets to be substituted for the previously submitted drawing sheets. The drawing Figures 3 and 6 have been amended. Appended to this amendment is an annotated copy of the previous drawing sheets which have been marked to show changes presented in the replacement sheets of the drawings.

The specific changes which have been made to Figure 3 and 6 are to label the coordinate r on the drawings. Figure 3 has also been amended to label the points a and b , and the coordinate z .



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FIG. 1

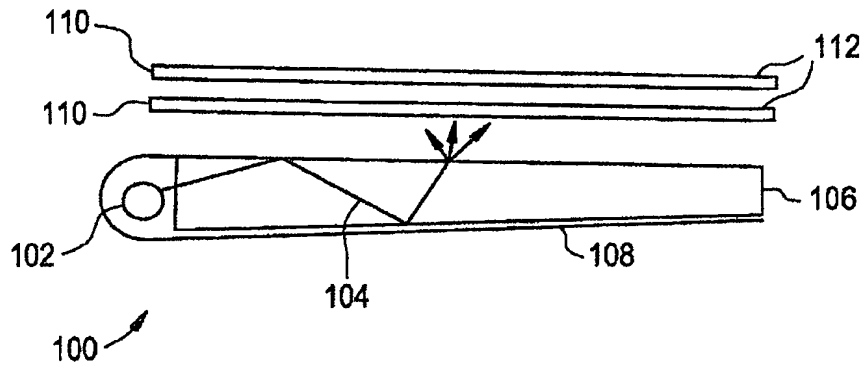


FIG. 2

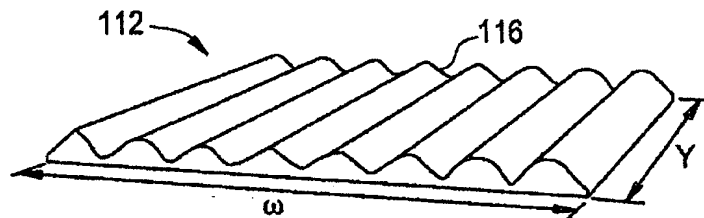


FIG. 3

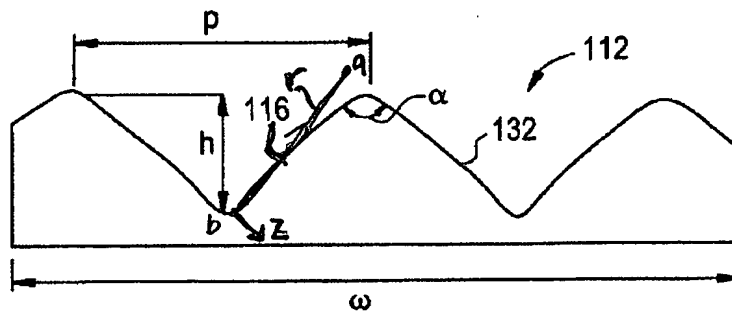


FIG. 6

